

TOP SECRET

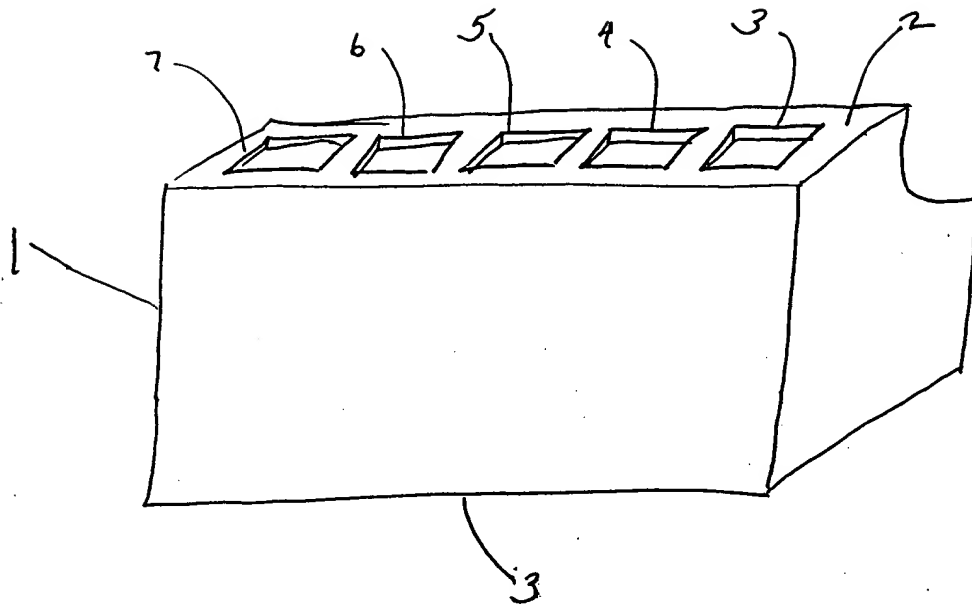


FIG. 2

FIG. 4a

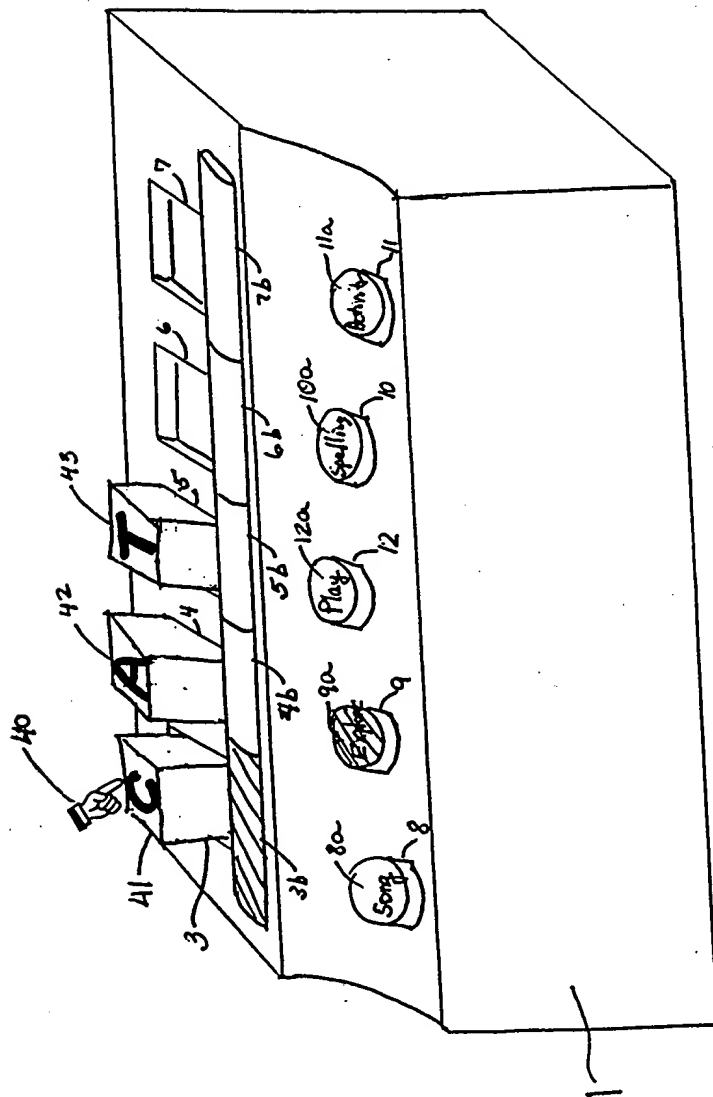


FIG. 4a

FIG. 4b

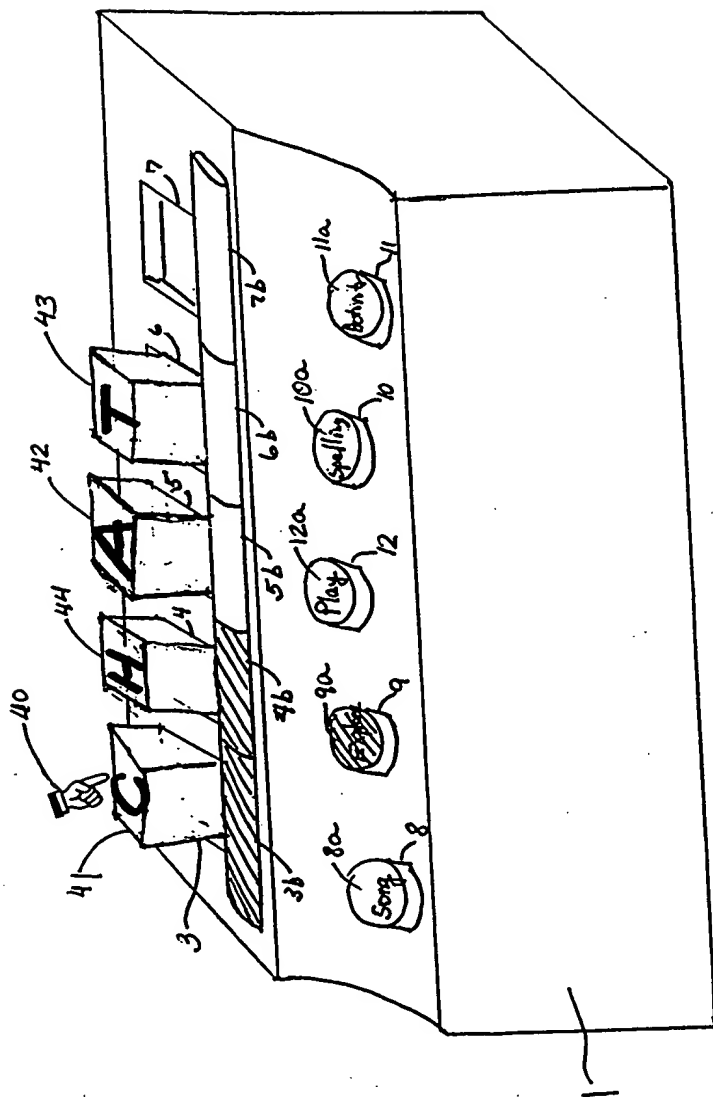


FIG. 4C

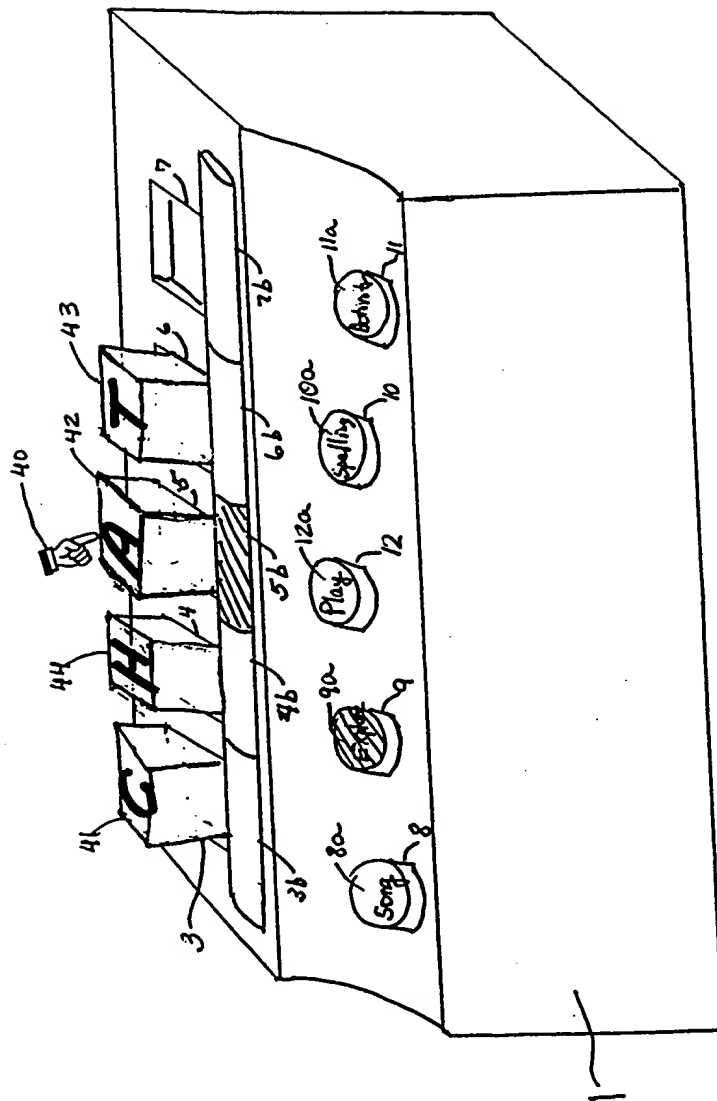


FIG. 4C

FIG. 4d

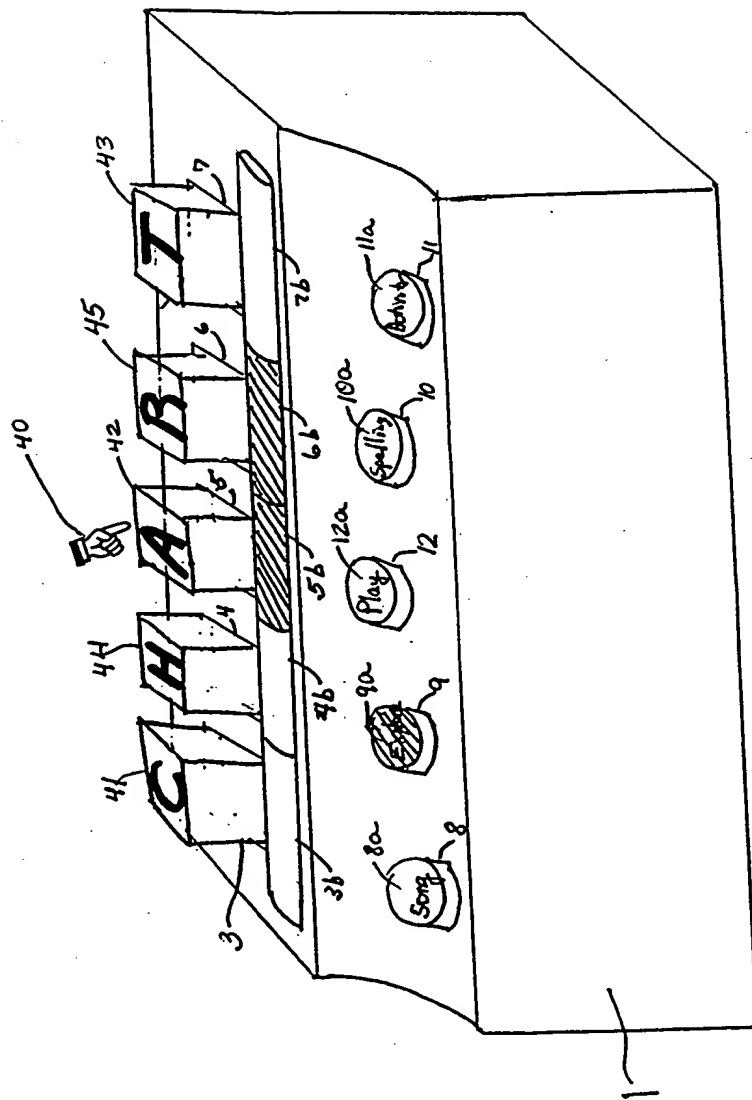


FIG. 4d

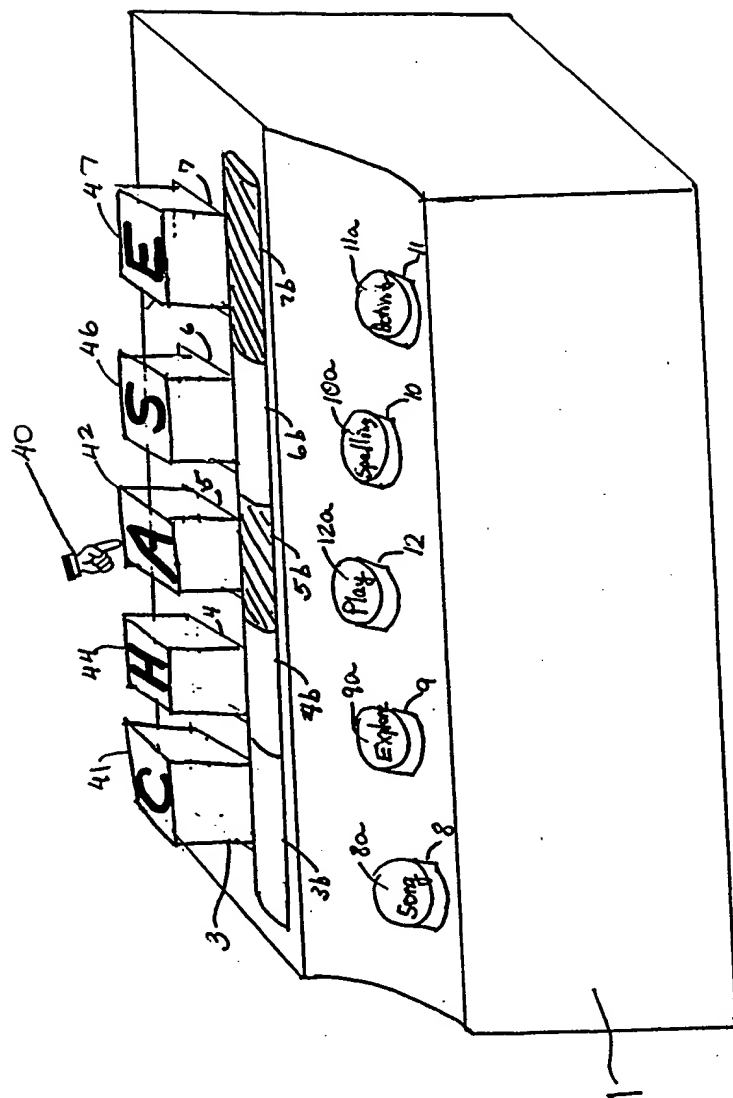
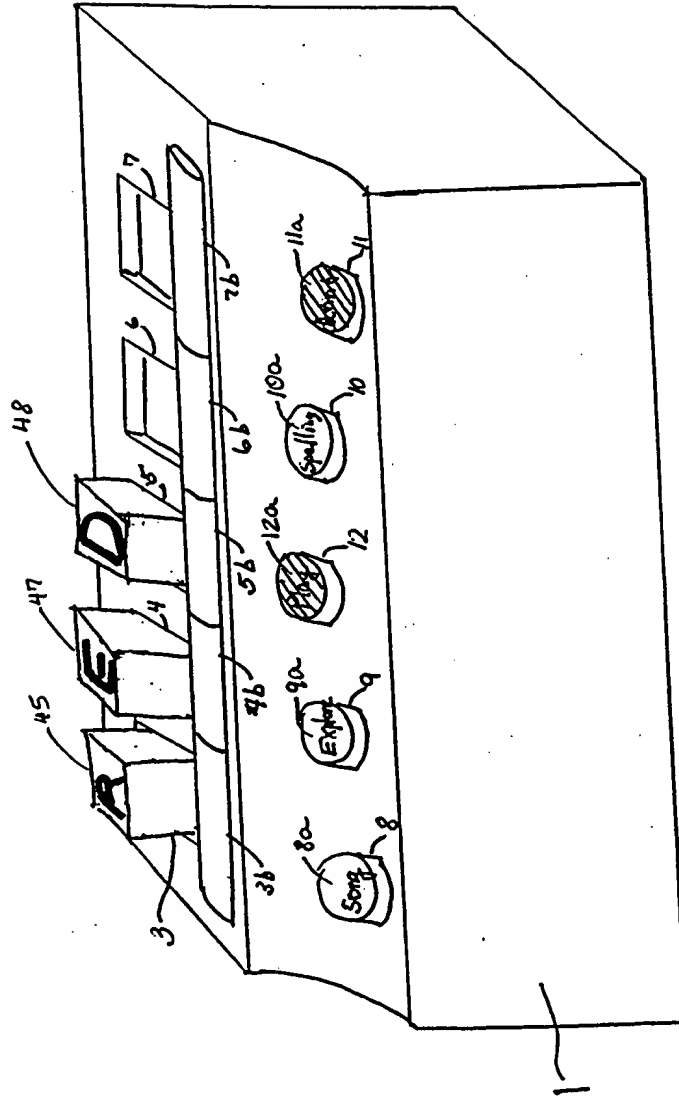


FIG. 4e



The 44 Sounds of English

0. ~~silence~~

Consonant Sounds

1. /b/ (bat)
2. /d/ (dog)
3. /f/ (fan)
4. /g/ (gate)
5. /h/ (hat)
6. /j/ (jump)
7. /k/ (kite)
8. /l/ (leaf)
9. /m/ (mop)
10. /n/ (nest)
11. /p/ (pig)
12. /r/ (rock)
13. /s/ (sun)
14. /t/ (top)
15. /v/ (vase)
16. /w/ (wagon)
17. /y/ (yo-yo)
18. /z/ (zebra)
19. /ch/ (cheese)
20. /sh/ (shark)
21. /zh/ (treasure)
22. /th/ (thumb)

Vowel Sounds

23. /th/ (the)
24. /hw/ (wheel)
25. /ng/ (ring)
26. /ā/ (cake)
27. /ē/ (feet)
28. /ī/ (bike)
29. /ō/ (boat)
30. /yū/ (cube)
31. /a/ (cat)
32. /e/ (bed)
33. /i/ (fish)
34. /o/ (lock)
35. /u/ (duck)
36. /a/ (alarm)
37. /b/ (chair)
38. /d/ (bird)
39. /b/ (car)
40. /b/ (ball)
41. /oi/ (boy)
42. /ou/ (house)
43. /oo/ (moon)
44. /oo/ (book)

45. /o/ (won) 46. /o/ (won) 47. /x/ () 48. /or/ (store)

FIG. 6

FOI# 12308260

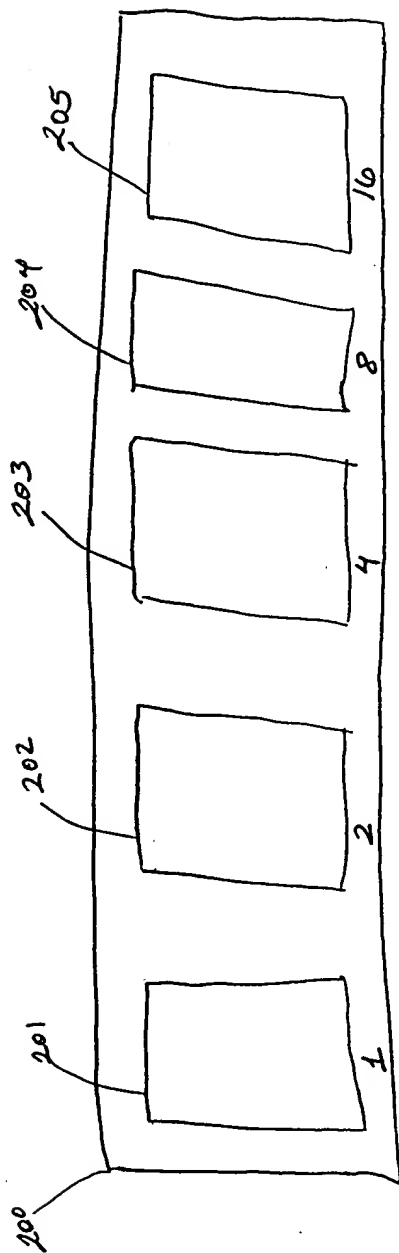


FIG. 7a

FIG. 7b

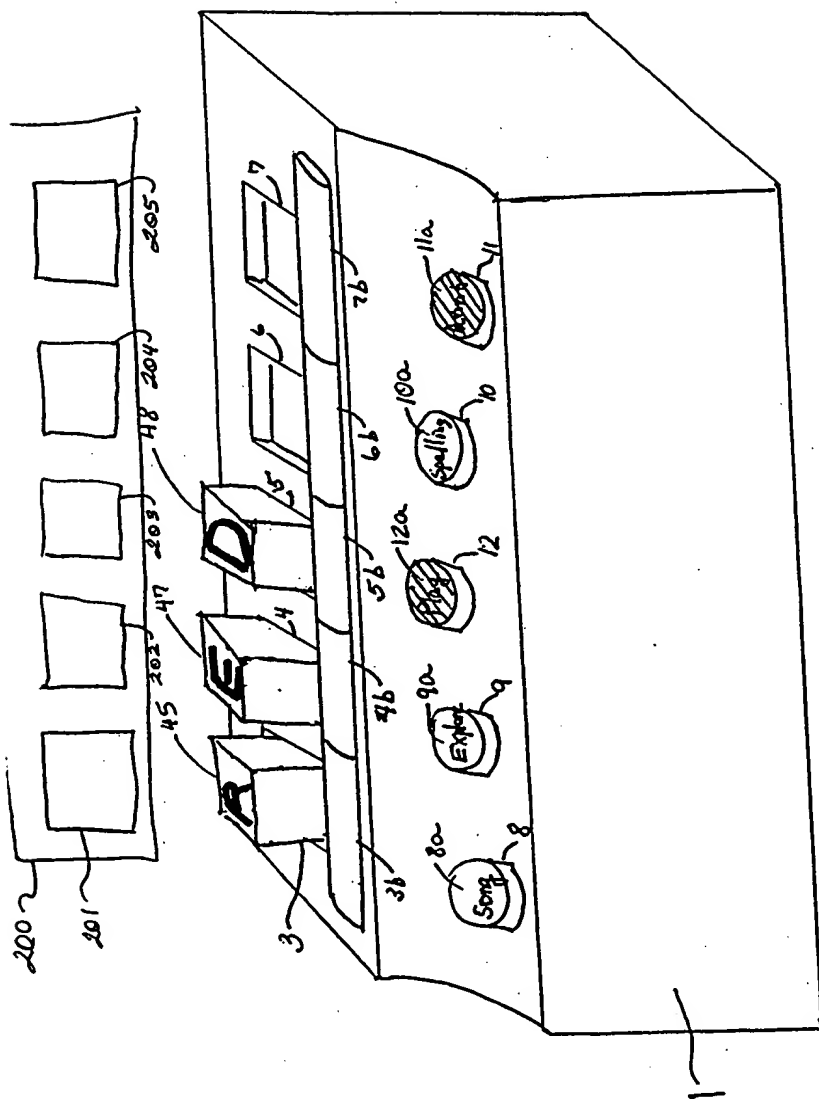


FIG. 7b



Fig. 7C

1. /worddict 2048 dict dup begin
 2. /a ["a" ["26"] ["01"] true] def
 3. /i ["i" ["28"] ["01"] true] def
 4. /am ["am" ["31" "9"] ["01" "02"] true] def
 5. /an ["an" ["31" "10"] ["01" "02"] true] def
 6. /as ["as" ["31" "18"] ["01" "02"] true] def
 7. /at ["at" ["31" "14"] ["01" "02"] true] def
 8. /be ["be" ["1" "27"] ["01" "02"] true] def
 9. /by ["by" ["1" "28"] ["01" "02"] true] def
 10. /do ["do" ["2" "43"] ["01" "02"] true] def
 11. /go ["go" ["4" "29"] ["01" "02"] true] def
 12. /he ["he" ["5" "27"] ["01" "02"] true] def
 13. /if ["if" ["33" "3"] ["01" "02"] true] def
 14. /in ["in" ["33" "10"] ["01" "02"] true] def
 15. /is ["is" ["33" "18"] ["01" "02"] true] def
 16. /it ["it" ["33" "14"] ["01" "02"] true] def
 17. /me ["me" ["9" "27"] ["01" "02"] true] def
 18. /my ["my" ["9" "28"] ["01" "02"] true] def
 19. /no ["know" ["10" "29"] ["01" "02"] true] def
 20. /of ["of" ["36" "15"] ["01" "02"] true] def
 21. /on ["on" ["34" "10"] ["01" "02"] true] def
 22. /or ["or" ["29" "12"] ["01" "02"] true] def
 23. /ox ["ox" ["34" "47"] ["01" "02"] true] def
 24. /so ["sew" ["13" "29"] ["01" "02"] false] def
 25. /to ["to" ["14" "43"] ["01" "02"] true] def
 26. /up ["up" ["35" "11"] ["01" "02"] true] def
 27. /us ["us" ["35" "13"] ["01" "02"] true] def
 28. /we ["we" ["16" "27"] ["01" "02"] true] def
 29. /ace ["ace" ["26" "13" "0"] ["05" "02" "05"] true] def
 30. /act ["act" ["31" "7" "14"] ["01" "02" "04"] true] def
 31. /age ["age" ["26" "6" "0"] ["05" "02" "05"] true] def
 32. /ago ["ago" ["36" "4" "29"] ["01" "02" "04"] true] def
 33. /air ["air" ["37" "37" "12"] ["03" "03" "04"] true] def
 34. /all ["all" ["40" "8" "8"] ["01" "02" "04"] true] def
 35. /and ["and" ["31" "10" "2"] ["01" "02" "04"] true] def
 36. /ant ["ant" ["31" "10" "14"] ["01" "02" "04"] true] def
 37. /any ["any" ["32" "10" "27"] ["01" "02" "04"] true] def
 38. /ape ["ape" ["26" "11" "0"] ["05" "02" "05"] true] def
 39. /are ["are" ["39" "12" "0"] ["03" "03" "04"] true] def
 40. /arm ["arm" ["39" "12" "9"] ["03" "03" "04"] true] def
 41. /art ["art" ["39" "12" "14"] ["03" "03" "04"] true] def
 42. /ask ["ask" ["31" "13" "7"] ["01" "02" "04"] true] def
 43. /ate ["ate" ["26" "14" "0"] ["05" "02" "05"] true] def
 44. /bad ["bad" ["1" "31" "2"] ["01" "02" "04"] true] def
 45. /bag ["bag" ["1" "31" "4"] ["01" "02" "04"] true] def
 46. /bar ["bar" ["1" "39" "12"] ["01" "02" "04"] true] def

FIG. 8a

47. /bat ["bat" ["1" "31" "14"] ["01" "02" "04"] true] def
 48. /bed ["bed" ["1" "32" "2"] ["01" "02" "04"] true] def
 49. /bee ["bee" ["1" "27" "27"] ["01" "06" "06"] true] def
 50. /bet ["bet" ["1" "32" "14"] ["01" "02" "04"] true] def
 51. /big ["big" ["1" "33" "4"] ["01" "02" "04"] true] def
 52. /bit ["bit" ["1" "33" "14"] ["01" "02" "04"] true] def
 53. /bow ["bow" ["1" "29" "29"] ["01" "06" "06"] true] def
 54. /box ["box" ["1" "34" "47"] ["01" "02" "04"] true] def
 55. /boy ["boy" ["1" "41" "41"] ["01" "06" "06"] true] def
 56. /bud ["bud" ["1" "35" "2"] ["01" "02" "04"] true] def
 57. /bug ["bug" ["1" "35" "4"] ["01" "02" "04"] true] def
 58. /bun ["bun" ["1" "35" "10"] ["01" "02" "04"] true] def
 59. /bus ["bus" ["1" "35" "13"] ["01" "02" "04"] true] def
 60. /but ["but" ["1" "35" "14"] ["01" "02" "04"] true] def
 61. /buy ["by" ["1" "28" "28"] ["01" "06" "06"] true] def
 62. /bye ["by" ["1" "28" "0"] ["01" "06" "06"] true] def
 63. /cab ["cab" ["7" "31" "1"] ["01" "02" "04"] true] def
 64. /can ["can" ["7" "31" "10"] ["01" "02" "04"] true] def
 65. /cap ["cap" ["7" "31" "11"] ["01" "02" "04"] true] def
 66. /car ["car" ["7" "39" "12"] ["01" "02" "04"] true] def
 67. /cat ["cat" ["7" "31" "14"] ["01" "02" "04"] true] def
 68. /cop ["cop" ["7" "34" "11"] ["01" "02" "04"] true] def
 69. /cow ["cow" ["7" "42" "42"] ["01" "06" "06"] true] def
 70. /cry ["cry" ["7" "12" "28"] ["01" "02" "04"] true] def
 71. /cup ["cup" ["7" "36" "11"] ["01" "02" "04"] true] def
 72. /cut ["cut" ["7" "36" "14"] ["01" "02" "04"] true] def
 73. /dad ["dad" ["2" "31" "2"] ["01" "02" "04"] true] def
 74. /day ["day" ["2" "26" "26"] ["01" "06" "06"] true] def
 75. /den ["den" ["2" "32" "10"] ["01" "02" "04"] true] def
 76. /did ["did" ["2" "33" "2"] ["01" "02" "04"] true] def
 77. /dig ["dig" ["2" "33" "4"] ["01" "02" "04"] true] def
 78. /dog ["dog" ["2" "40" "4"] ["01" "02" "04"] true] def
 79. /dot ["dot" ["2" "34" "14"] ["01" "02" "04"] true] def
 80. /dry ["dry" ["2" "12" "28"] ["01" "02" "04"] true] def
 81. /ear ["ear" ["27" "27" "12"] ["03" "03" "04"] true] def
 82. /eat ["eat" ["27" "27" "14"] ["03" "03" "04"] true] def
 83. /egg ["egg" ["32" "4" "4"] ["01" "06" "06"] true] def
 84. /end ["end" ["32" "10" "2"] ["01" "02" "04"] true] def
 85. /eye ["eye" ["28" "28" "0"] ["04" "05" "07"] true] def
 86. /fan ["fan" ["3" "31" "10"] ["01" "02" "04"] true] def
 87. /far ["far" ["3" "39" "12"] ["01" "02" "04"] true] def
 88. /fat ["fat" ["3" "31" "14"] ["01" "02" "04"] true] def
 89. /fed ["fed" ["3" "32" "2"] ["01" "02" "04"] true] def
 90. /few ["few" ["3" "30" "30"] ["01" "06" "06"] true] def
 91. /fit ["fit" ["3" "33" "14"] ["01" "02" "04"] true] def
 92. /fix ["fix" ["3" "33" "47"] ["01" "02" "04"] true] def
 93. /fly ["fly" ["3" "8" "28"] ["01" "02" "04"] true] def
 94. /for ["for" ["3" "29" "12"] ["01" "02" "04"] true] def
 95. /fox ["fox" ["3" "34" "47"] ["01" "02" "04"] true] def
 96. /fry ["fry" ["3" "12" "28"] ["01" "02" "04"] true] def
 97. /fun ["fun" ["3" "36" "10"] ["01" "02" "04"] true] def
 98. /fur ["fur" ["3" "38" "12"] ["01" "02" "04"] true] def
 99. /gap ["gap" ["4" "31" "11"] ["01" "02" "04"] true] def
 100. /get ["get" ["4" "32" "14"] ["01" "02" "04"] true] def

FIG. 8b

101./gnu ["gnu" ["0" "10" "43"] ["03" "02" "04"] true] def
102./got ["got" ["4" "34" "14"] ["01" "02" "04"] true] def
103./gum ["gum" ["4" "35" "9"] ["01" "02" "04"] true] def
104./guy ["guy" ["4" "28" "28"] ["01" "06" "06"] true] def
105./had ["had" ["5" "31" "2"] ["01" "02" "04"] true] def
106./ham ["ham" ["5" "31" "9"] ["01" "02" "04"] true] def
107./has ["has" ["5" "31" "18"] ["01" "02" "04"] true] def
108./hat ["hat" ["5" "31" "14"] ["01" "02" "04"] true] def
109./hay ["hay" ["5" "26" "26"] ["01" "06" "06"] true] def
110./hen ["hen" ["5" "32" "10"] ["01" "02" "04"] true] def
111./her ["her" ["5" "38" "12"] ["01" "02" "04"] true] def
112./hey ["hey" ["5" "26" "26"] ["01" "06" "06"] false] def
113./hid ["hid" ["5" "33" "2"] ["01" "02" "04"] true] def
114./him ["him" ["5" "33" "9"] ["01" "02" "04"] true] def
115./hip ["hip" ["5" "33" "11"] ["01" "02" "04"] true] def
116./his ["his" ["5" "33" "18"] ["01" "02" "04"] true] def
117./hit ["hit" ["5" "33" "14"] ["01" "02" "04"] true] def
118./hog ["hog" ["5" "34" "4"] ["01" "02" "04"] true] def
119./hop ["hop" ["5" "34" "11"] ["01" "02" "04"] true] def
120./hot ["hot" ["5" "34" "14"] ["01" "02" "04"] true] def
121./how ["how" ["5" "42" "42"] ["01" "06" "06"] true] def
122./hug ["hug" ["5" "35" "4"] ["01" "02" "04"] true] def
123./hum ["hum" ["5" "35" "9"] ["01" "02" "04"] true] def
124./hut ["hut" ["5" "35" "14"] ["01" "02" "04"] true] def
125./ice ["ice" ["28" "13" "0"] ["05" "02" "05"] true] def
126./ink ["ink" ["33" "10" "7"] ["01" "02" "04"] true] def
127./jam ["jam" ["6" "31" "9"] ["01" "02" "04"] true] def
128./jar ["jar" ["6" "39" "12"] ["01" "06" "04"] true] def
129./jaw ["jaw" ["6" "40" "40"] ["01" "05" "04"] true] def
130./jet ["jet" ["6" "32" "14"] ["01" "02" "04"] true] def
131./job ["job" ["6" "40" "1"] ["01" "02" "04"] true] def
132./jog ["jog" ["6" "40" "4"] ["01" "02" "04"] true] def
133./joy ["joy" ["6" "41" "41"] ["01" "06" "06"] true] def
134./jug ["jug" ["6" "35" "4"] ["01" "02" "04"] true] def
135./key ["key" ["7" "27" "27"] ["01" "06" "06"] true] def
136./kid ["kid" ["7" "33" "2"] ["01" "02" "04"] true] def
137./kit ["kit" ["7" "33" "14"] ["01" "02" "04"] true] def
138./lab ["lab" ["8" "31" "1"] ["01" "02" "04"] true] def
139./lay ["lay" ["8" "26" "26"] ["01" "06" "06"] true] def
140./leg ["leg" ["8" "32" "4"] ["01" "02" "04"] true] def
141./let ["let" ["8" "32" "14"] ["01" "02" "04"] true] def
142./lid ["lid" ["8" "33" "2"] ["01" "02" "04"] true] def
143./lie ["lie" ["8" "28" "0"] ["01" "06" "06"] true] def
144./lip ["lip" ["8" "33" "11"] ["01" "02" "04"] true] def
145./log ["log" ["8" "34" "4"] ["01" "02" "04"] true] def
146./lot ["lot" ["8" "34" "14"] ["01" "02" "04"] true] def
147./mad ["mad" ["9" "31" "2"] ["01" "02" "04"] true] def
148./man ["man" ["9" "31" "10"] ["01" "02" "04"] true] def
149./map ["map" ["9" "31" "11"] ["01" "02" "04"] true] def
150./mat ["mat" ["9" "31" "14"] ["01" "02" "04"] true] def
151./may ["may" ["9" "26" "26"] ["01" "06" "06"] true] def
152./men ["men" ["9" "32" "10"] ["01" "02" "04"] true] def
153./met ["met" ["9" "32" "14"] ["01" "02" "04"] true] def
154./mix ["mix" ["9" "33" "47"] ["01" "02" "04"] true] def

FIG. 8C

155./mom ["mom" ["9" "34" "9"] ["01" "02" "04"] true] def
 156./moo ["moo" ["9" "43" "43"] ["01" "06" "06"] true] def
 157./mop ["mop" ["9" "34" "11"] ["01" "02" "04"] true] def
 158./mud ["mud" ["9" "35" "2"] ["01" "02" "04"] true] def
 159./mug ["mug" ["9" "35" "4"] ["01" "02" "04"] true] def
 160./nap ["nap" ["10" "31" "11"] ["01" "02" "04"] true] def
 161./net ["net" ["10" "32" "14"] ["01" "02" "04"] true] def
 162./new ["new" ["10" "43" "43"] ["01" "06" "06"] true] def
 163./nod ["nod" ["10" "34" "2"] ["01" "02" "04"] true] def
 164./not ["not" ["10" "34" "14"] ["01" "02" "04"] true] def
 165./now ["now" ["10" "42" "42"] ["01" "06" "06"] true] def
 166./nut ["nut" ["10" "35" "14"] ["01" "02" "04"] true] def
 167./off ["off" ["34" "3" "3"] ["01" "06" "06"] true] def
 168./oil ["oil" ["41" "41" "8"] ["03" "03" "04"] true] def
 169./old ["old" ["29" "8" "2"] ["01" "02" "04"] true] def
 170./one ["one" ["16" "10" "0"] ["01" "02" "04"] true] def
 171./our ["our" ["42" "42" "12"] ["03" "03" "04"] true] def
 172./out ["out" ["42" "42" "14"] ["03" "03" "04"] true] def
 173./owl ["owl" ["42" "42" "8"] ["01" "02" "04"] true] def
 174./own ["own" ["29" "29" "10"] ["01" "02" "04"] true] def
 175./pad ["pad" ["11" "31" "2"] ["01" "02" "04"] true] def
 176./pal ["pal" ["11" "31" "8"] ["01" "02" "04"] true] def
 177./pan ["pan" ["11" "31" "10"] ["01" "02" "04"] true] def
 178./pat ["pat" ["11" "31" "14"] ["01" "02" "04"] true] def
 179./pea ["pea" ["11" "27" "27"] ["01" "06" "06"] true] def
 180./pen ["pen" ["11" "32" "10"] ["01" "02" "04"] true] def
 181./pet ["pet" ["11" "32" "14"] ["01" "02" "04"] true] def
 182./pie ["pie" ["11" "28" "28"] ["01" "06" "06"] true] def
 183./pig ["pig" ["11" "33" "4"] ["01" "02" "04"] true] def
 184./pin ["pin" ["11" "33" "10"] ["01" "02" "04"] true] def
 185./pit ["pit" ["11" "33" "14"] ["01" "02" "04"] true] def
 186./pop ["pop" ["11" "34" "11"] ["01" "02" "04"] true] def
 187./pot ["pot" ["11" "34" "14"] ["01" "02" "04"] true] def
 188./put ["put" ["11" "36" "14"] ["01" "02" "04"] true] def
 189./rag ["rag" ["12" "31" "8"] ["01" "02" "04"] true] def
 190./ram ["ram" ["12" "31" "9"] ["01" "02" "04"] true] def
 191./ran ["ran" ["12" "31" "10"] ["01" "02" "04"] true] def
 192./rap ["rap" ["12" "31" "11"] ["01" "02" "04"] true] def
 193./rat ["rat" ["12" "31" "14"] ["01" "02" "04"] true] def
 194./raw ["raw" ["12" "34" "34"] ["01" "06" "06"] true] def
 195./ray ["ray" ["12" "26" "26"] ["01" "06" "06"] true] def
 196./red ["red" ["12" "31" "2"] ["01" "02" "04"] true] def
 197./rib ["rib" ["12" "33" "1"] ["01" "02" "04"] true] def
 198./rid ["rid" ["12" "33" "2"] ["01" "02" "04"] true] def
 199./rip ["rip" ["12" "33" "11"] ["01" "02" "04"] true] def
 200./rod ["rod" ["12" "34" "2"] ["01" "02" "04"] true] def
 201./rot ["rot" ["12" "34" "14"] ["01" "02" "04"] true] def
 202./row ["row" ["12" "29" "29"] ["01" "06" "06"] true] def
 203./rub ["rub" ["12" "35" "1"] ["01" "02" "04"] true] def
 204./rug ["rug" ["12" "35" "4"] ["01" "02" "04"] true] def
 205./run ["run" ["12" "35" "10"] ["01" "02" "04"] true] def
 206./sad ["sad" ["13" "31" "2"] ["01" "02" "04"] true] def
 207./sat ["sat" ["13" "31" "14"] ["01" "02" "04"] true] def
 208./saw ["saw" ["13" "40" "40"] ["01" "06" "06"] true] def

FIG. 8d

A perspective view of the toy block set 100. The front face of the blocks shows letters and numbers: 'A' (42), 'C' (40), 'E' (47), and '1' (201c). The side face of the blocks shows words and numbers: 'Song' (80), 'Eight' (90), 'Play' (120), 'Spelling' (100), and 'Acting' (110). The blocks are numbered 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 8

951

FIG. 10

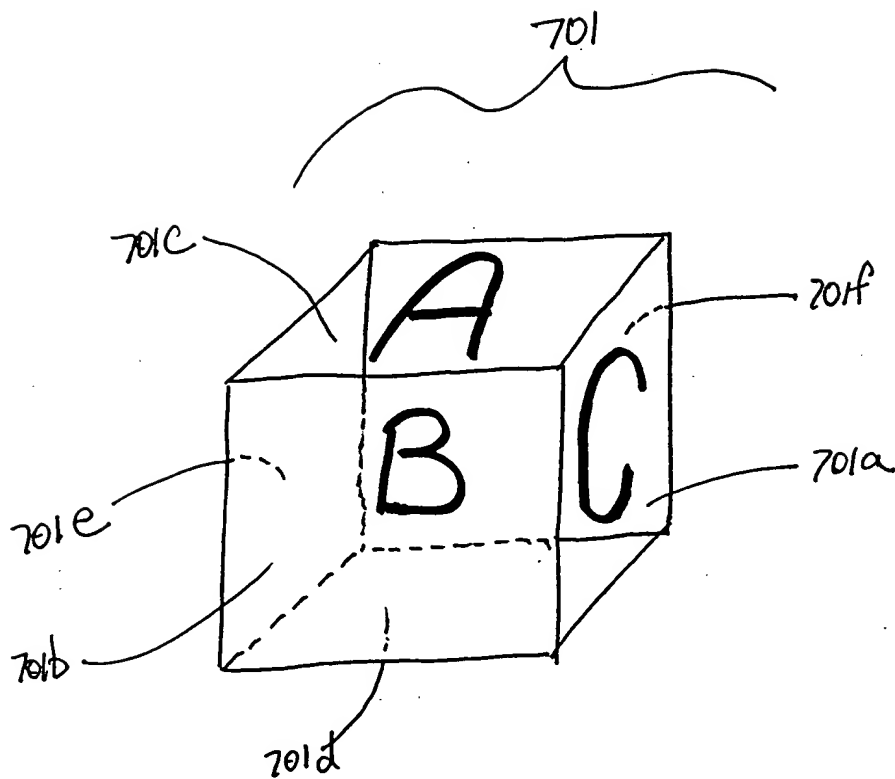


FIG. 10

FIG. 11a

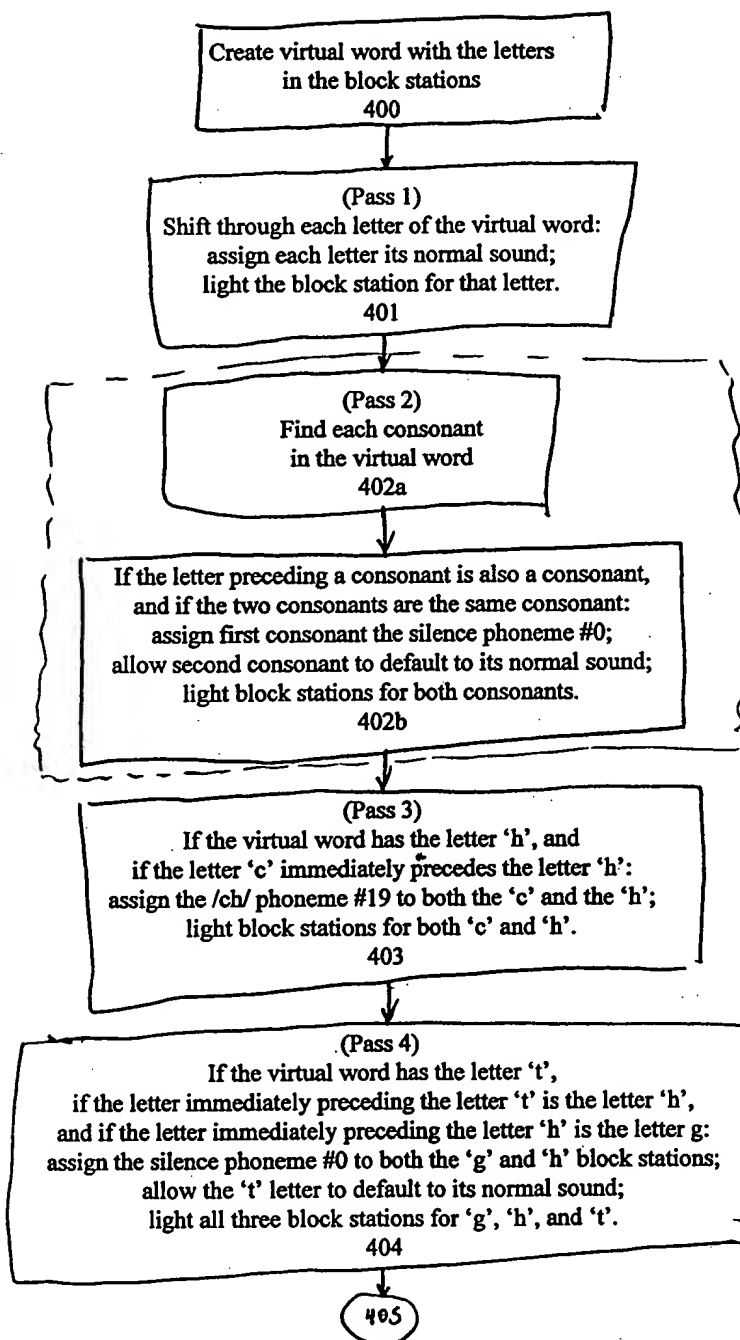


FIG. 11a

```

graph TD
    P5["(Pass 5)  
If the virtual word has the letter 'g', and  
if letter immediately following the 'g', is 'e' or 'i':  
assign the letter 'g' the /j/ phoneme #6;  
light both block stations for 'g', and for the 'e' or 'i'.  
405"]
    P6["(Pass 6)  
If the virtual word has the letter 'c', and  
if the letter immediately following the letter 'c', is 'e' or 'i':  
assign the letter 'c' the /s/ phoneme #13;  
light both block stations for 'g', and for the 'e' or 'i'.  
406"]
    P7["(Pass 7)  
If 'k' is the last letter of the virtual word, and  
if the letter 'k' is immediately preceded by the letter 'c':  
assign the /k/ phoneme #7 to both the 'k' and the 'c';  
light both the 'k' and the 'c' block stations.  
407"]
    P8["(Pass 8)  
If 'k' is the first letter of the virtual word, and  
if the letter 'k' is followed by the letter 'n':  
assign the letter 'k' the silence phoneme #0;  
light both the 'k' and the 'n' block stations.  
408"]
    P9["(Pass 9)  
If 'w' is the first letter of the virtual word, and  
if the letter 'r' immediately follows the letter 'w':  
assign the 'w' the silence phoneme #0;  
light both the 'w' and the 'r' block stations.  
409"]
    End((410))

    P5 --> P6
    P6 --> P7
    P7 --> P8
    P8 --> P9
    P9 --> End
  
```

FIG. 11b

FOI 200-12303260

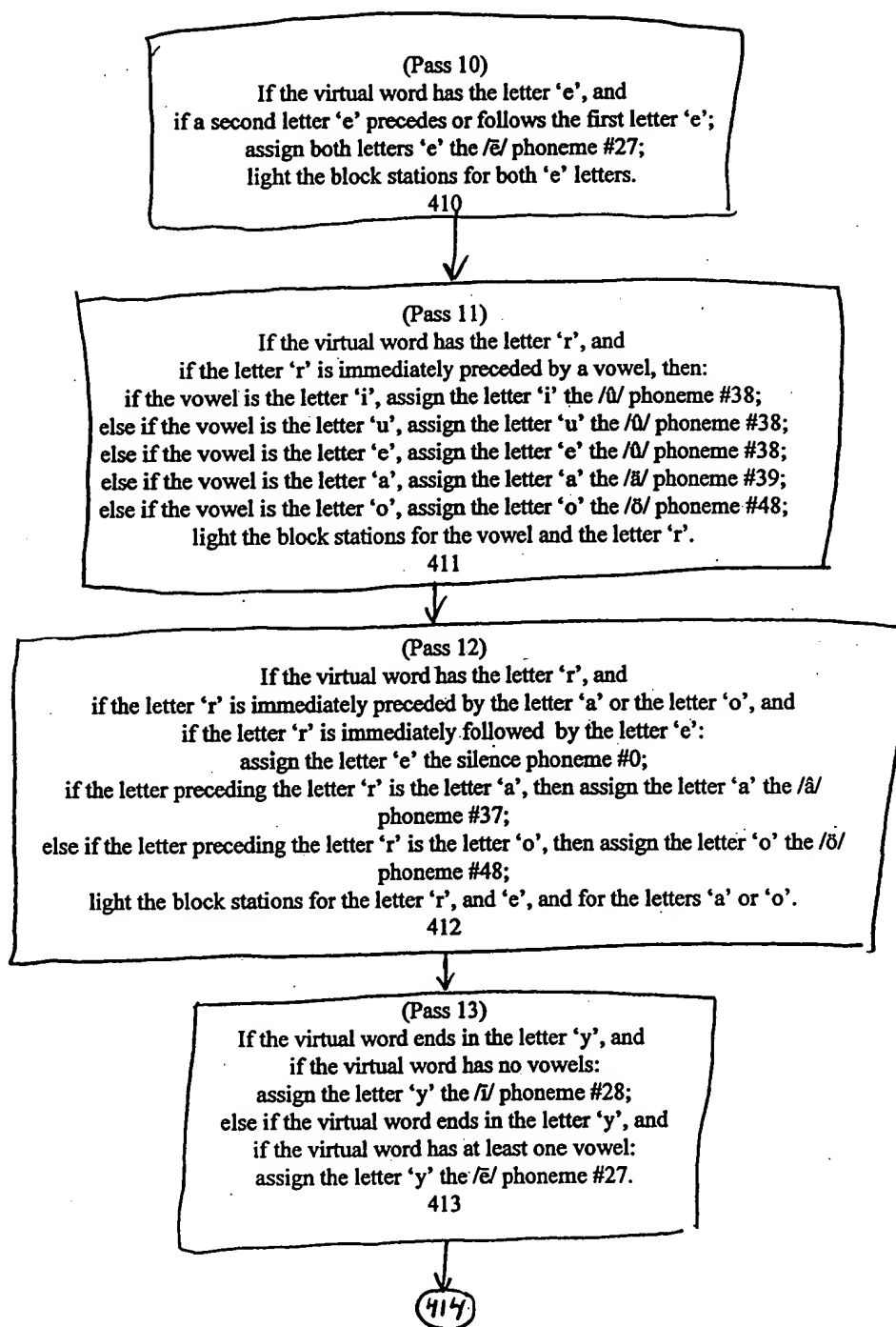


FIG. 11c

(Pass 14)
If the virtual word has the letter 'y', and
if the letter immediately preceding the letter 'y' is the letter 'a':
assign the letter 'y' the silence phoneme #0;
assign the letter 'a' the /ā/ phoneme #26;
light the block stations for both the 'a' and the 'y'.

414

(Pass 15)
If the last letter in the virtual word is a vowel, and
if there is only one vowel in the virtual word, then:
if the vowel is the letter 'e', assign the letter 'e' the /ē/ phoneme #27;
else if the vowel is the letter 'i', assign the letter 'i' the /ī/ phoneme #28;
else if the vowel is the letter 'o', assign the letter 'o' the /ō/ phoneme #29.

415

(Pass 16)
If the virtual word has the letter 'h', and
if the letter 'h' is immediately preceded by the letter 'g', and
if the letter 'g' is immediately preceded by the letter 'i', then:
assign the silence phoneme #0 to both the letters 'g' and 'h';
assign the /i/ phoneme 28 to the letter 'i';
light the block stations for the letters 'i', 'g', and 'h'.

416

(Pass 17)
If the virtual word has the letter 'o', and
if the letter 'o' is immediately preceded by or immediately followed by another letter 'o',
then:
assign both letter 'o's the /ōō/ phoneme #43; and
light the block stations for both letter 'o's.

417

(Pass 18)
If the virtual word has the letter 'w', and
if the letter 'w' is immediately preceded by the letter 'e', then:
assign both letter 'e' and letter 'w' the /ōō/ phoneme #43; and
light the block stations for both letters.

418

419

FIG. 11d

(Pass 19)
If the virtual word has the letter 'u', and
if the letter 'u' is immediately followed by a consonant, and
if the consonant is immediately followed by the letter 'e', then:
assign the letter 'e' the silence phoneme #0;
assign the letter 'u' the /ōō/ phoneme #43; and
light the block station for the letter 'u' and the block station for the letter 'e'.
419

(Pass 20)
If the virtual word has the letter 'o', and
if the letter 'o' is immediately followed by the letter 'u', then:
assign the letters 'o' and 'u' the /ou/ phoneme #42; and
light the block station for the letter 'o' and the block station for the letter 'u'.
420

(Pass 21)
If the virtual word has the letter 'g', and
if the letter 'g' is immediately followed by the letter 'n', then:
assign the letter 'g' the silence phoneme #0;
the letter 'n' defaults to its normal sound; and
light the block station for the letter 'g' and the block station for the letter 'n'.
421

(Pass 22)
If the virtual word has the letter 'y', and
if the letter 'y' is immediately preceded by the letter 'o', then:
assign the letter 'o' the /oi/ phoneme #41;
assign the letter 'y' the /oi/ phoneme #41; and
light the block station for the letter 'o' and the block station for the letter 'y'.
422

(Pass 23)
If the virtual word has the letter 'h', and
if the letter 'h' is directly preceded by the letter 'w', then:
assign the letter 'w' the /hw/ phoneme #24;
assign the letter 'h' the /hw/ phoneme #24; and
light the block station for the letter 'w' and the block station for the letter 'h'.
423

424

FIG. 11e

FIG. 11e

FIG. 11f

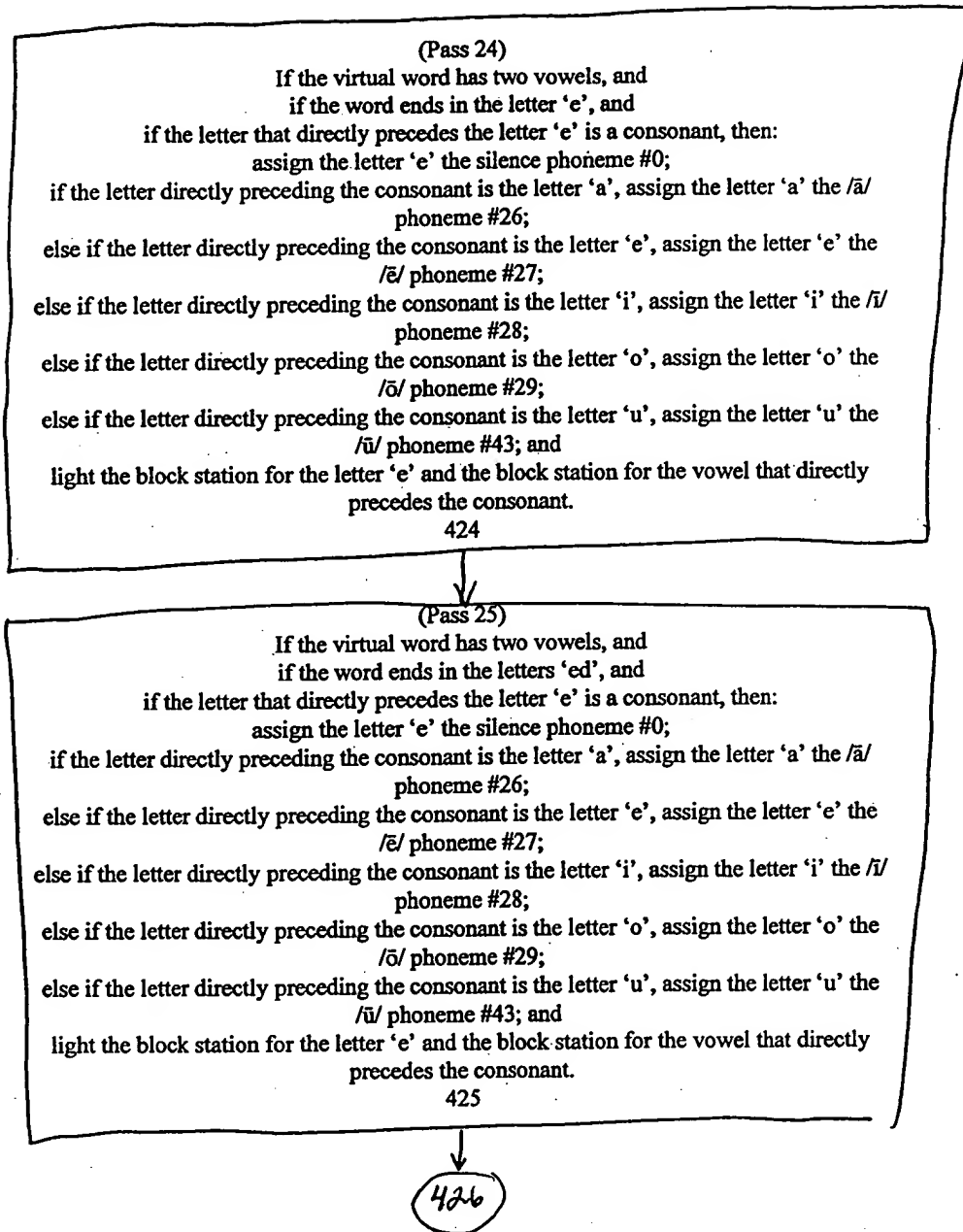


FIG. 11f

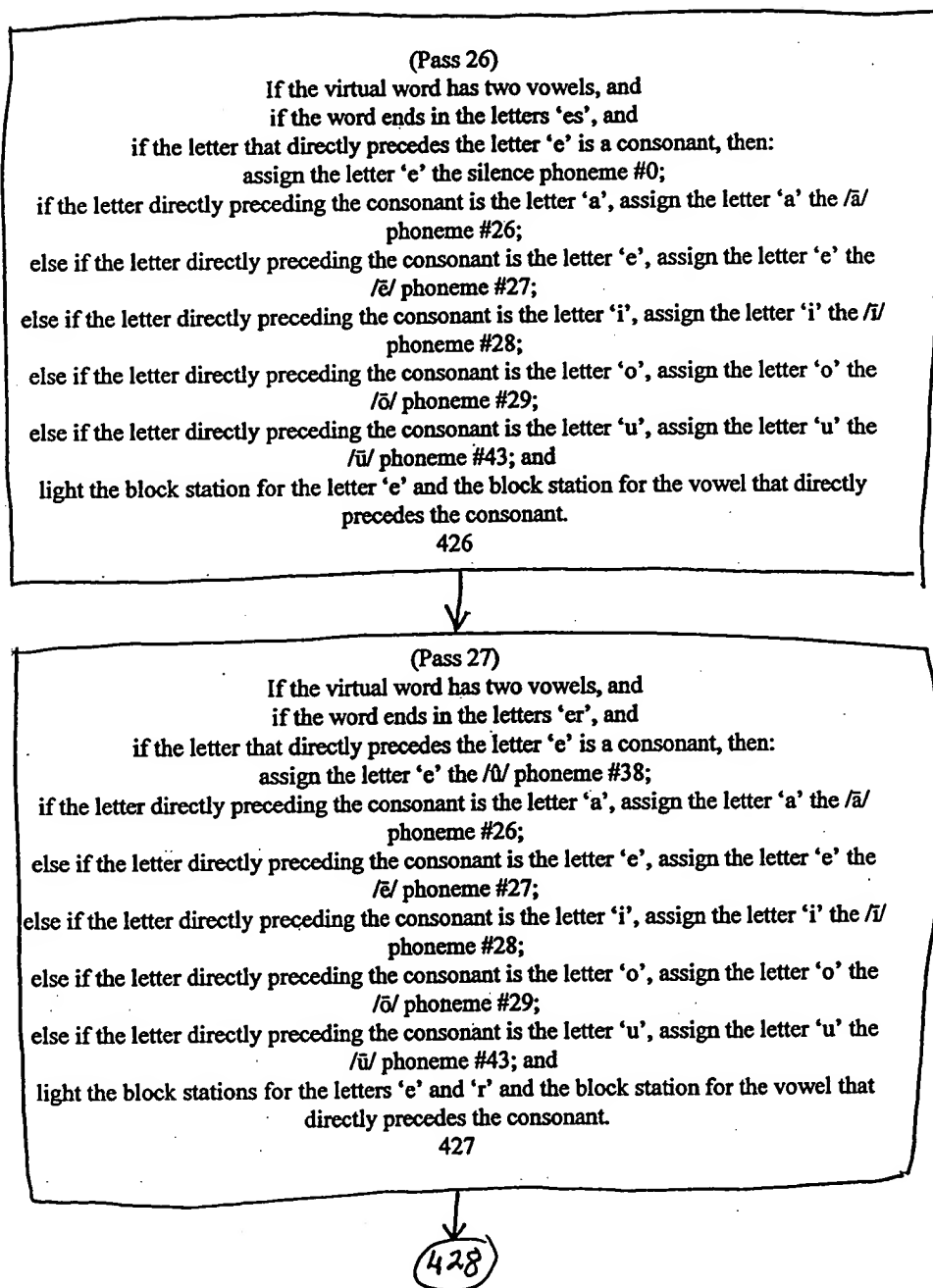


FIG. 11g

(Pass 28)
If the virtual word has the letter 'u', and
if the letter 'u' is directly preceded by the letter 'q', then:
assign the letter 'q' the /k/ phoneme #7;
assign the letter 'u' the /w/ phoneme #16; and
light the block station for the letter 'q' and the block station for the letter 'u'.
428

(Pass 29)

If the virtual word has the letter 'p', and
if the letter 'p' is directly followed by the letter 'h', then:
assign the letter 'p' the /f/ phoneme #3;
assign the letter 'h' the /f/ phoneme #3; and
light the block station for the letter 'p' and the block station for the letter 'h'.

429

(Pass 30)

If the virtual word has the letter 'n', and
if the letter 'n' is directly followed by the letter 'g', then:
 assign the letter 'n' the /ng/ phoneme #25;
 assign the letter 'g' the /ng/ phoneme #25; and
light the block station for the letter 'n' and the block station for the letter 'g'.

430

(Pass 31)

If the virtual word has the letter 's', and
if the letter 's' is directly followed by the letter 'h', then:
assign the letter 's' the /sh/ phoneme #20;
assign the letter 'h' the /sh/ phoneme #20; and
light the block station for the letter 's' and the block station for the letter 'h'.

431

(Pass 32)

If the virtual word has the letter 't', and
if the letter 't' is directly followed by the letter 'h', then:
assign the letter 't' the /th/ phoneme #22;
assign the letter 'h' the /th/ phoneme #22; and
light the block station for the letter 't' and the block station for the letter 'h'.

432

433

FIG. 11h

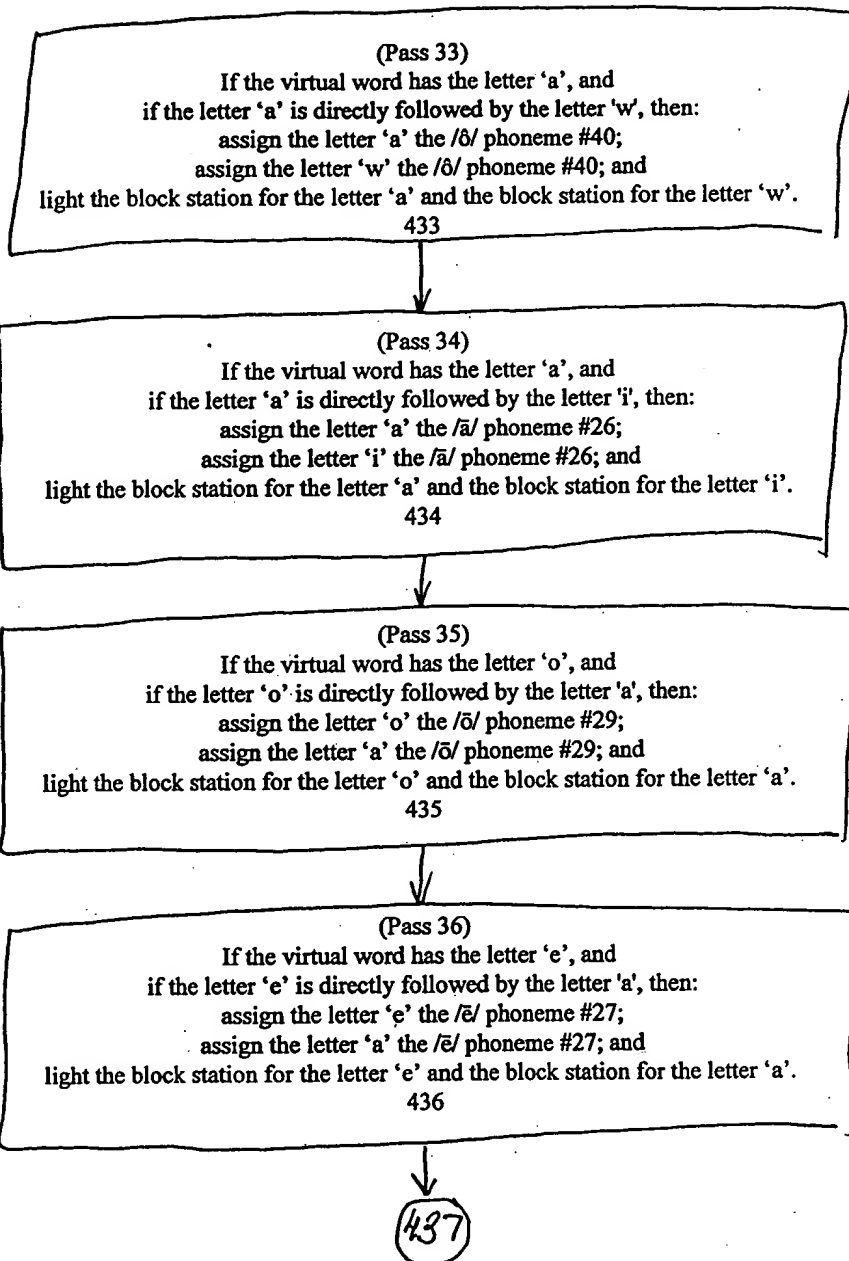


FIG. 11i

00780641 00780641

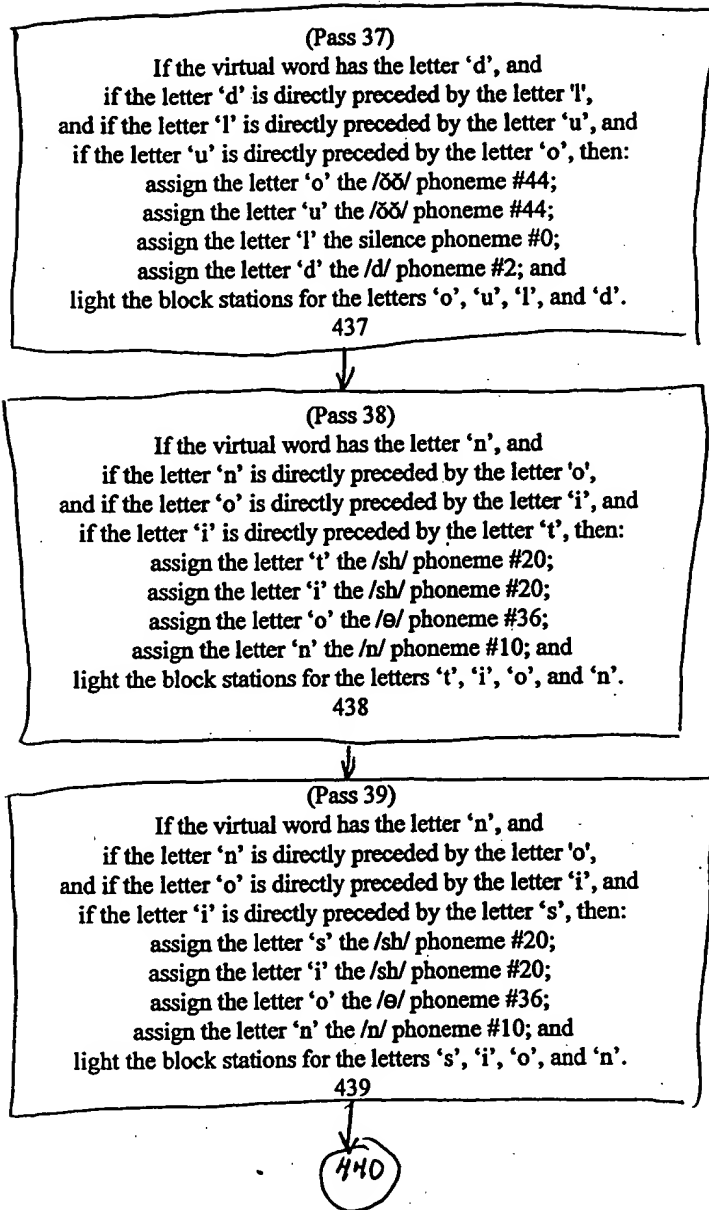


FIG. 11j

FILED "12506260"

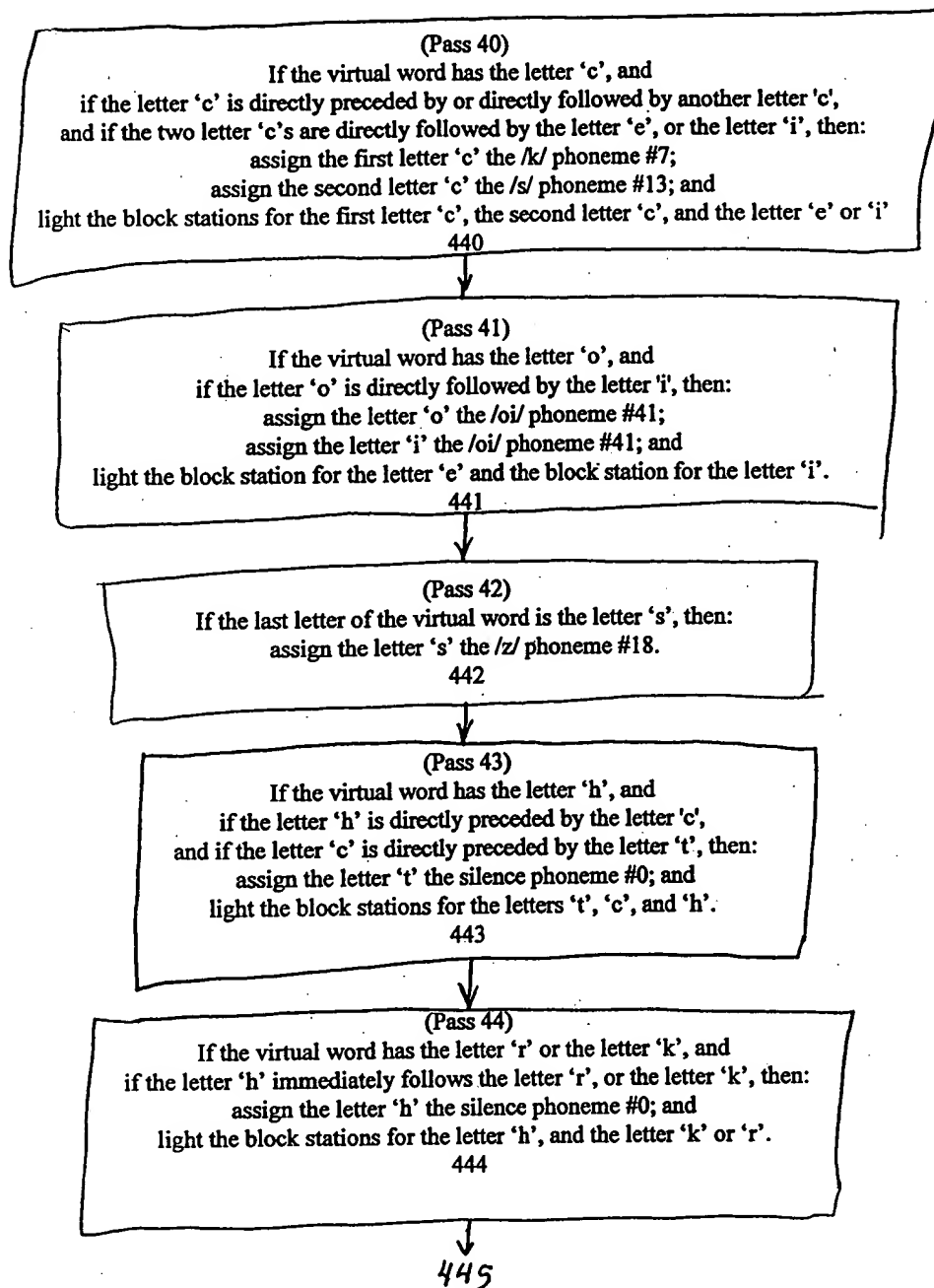


FIG. 11k

FIG. 11

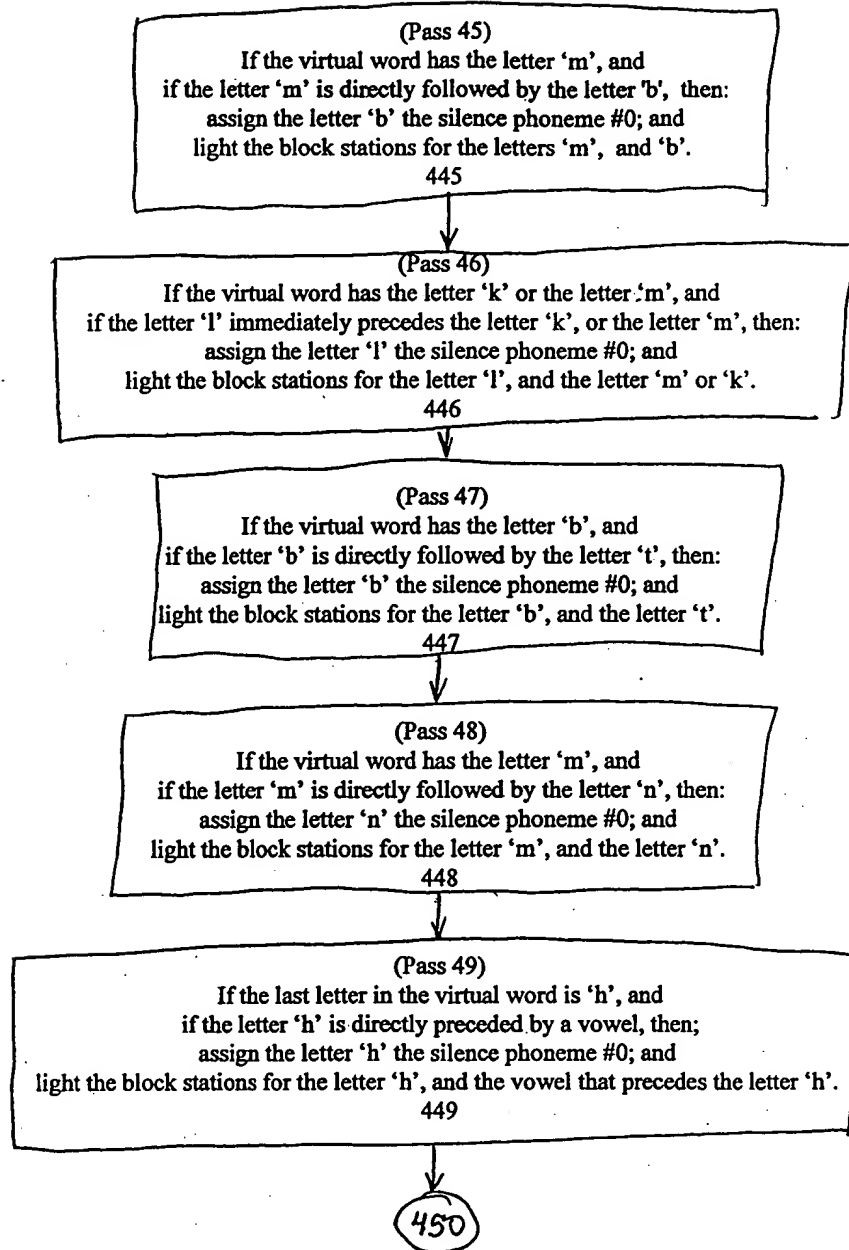


FIG. 11

FIG. 11m

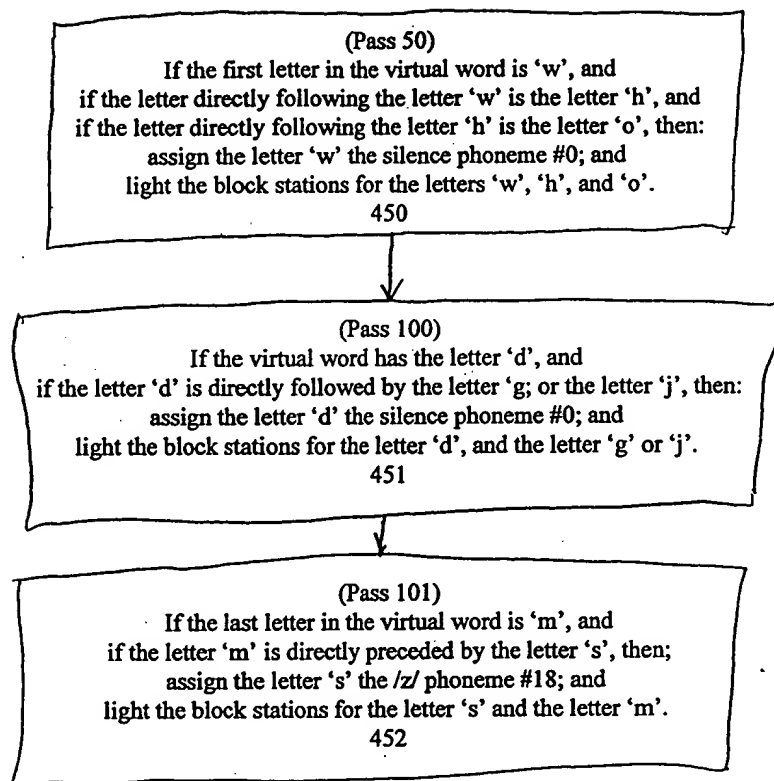


FIG. 11m

FIG. 12

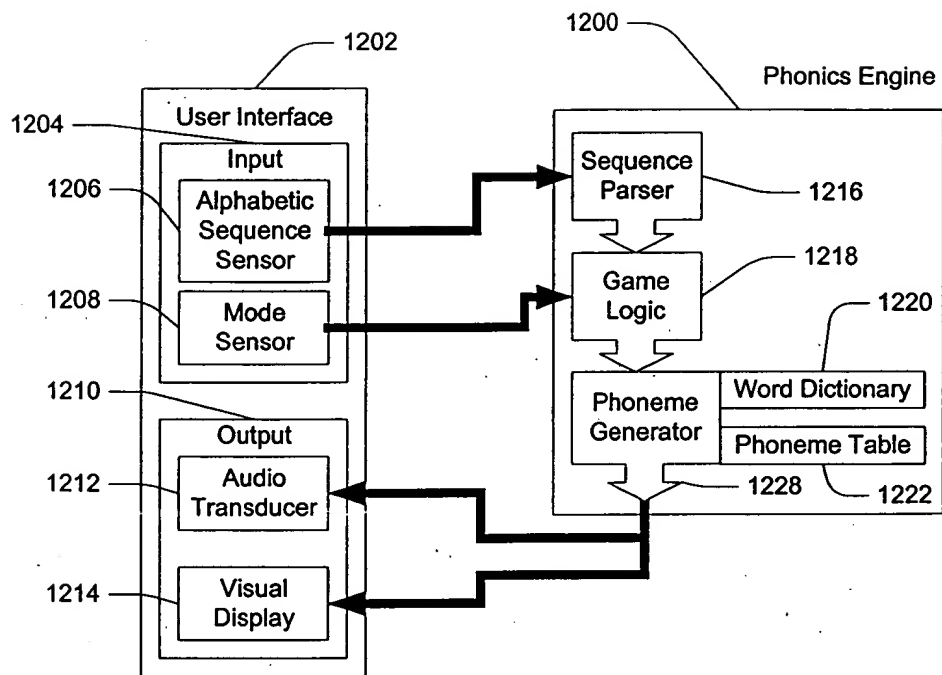


FIG. 12

FIG. 13

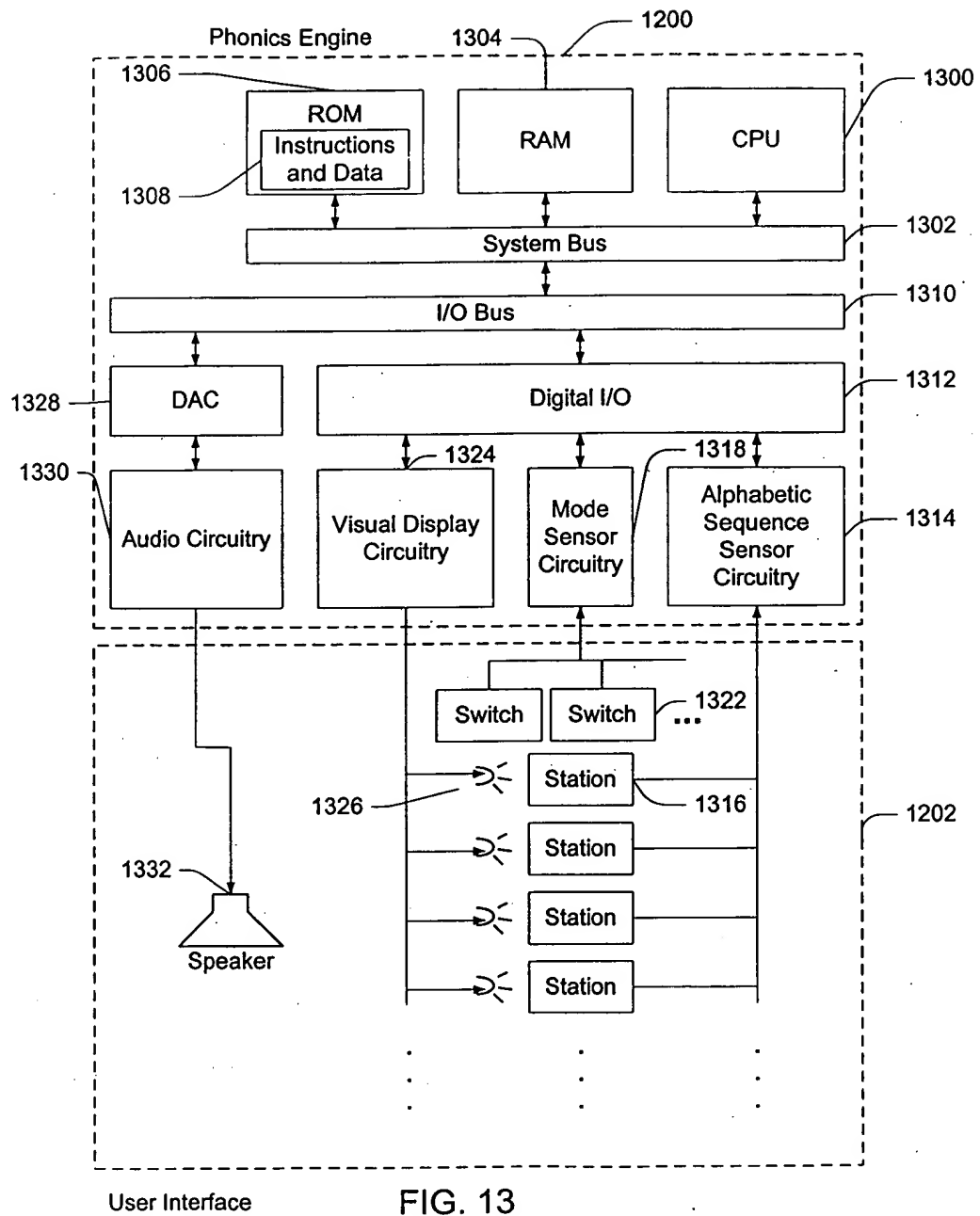


FIG. 13

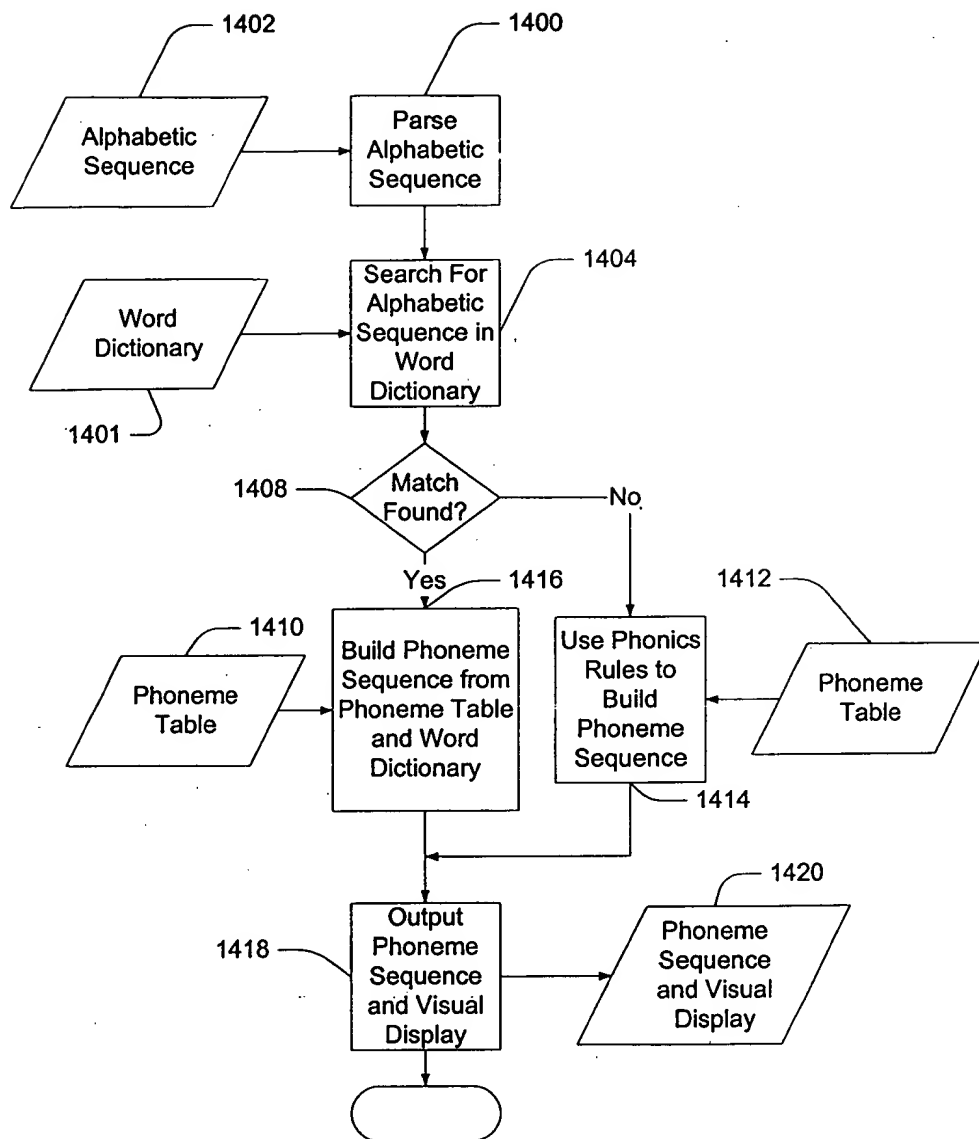


FIG. 14

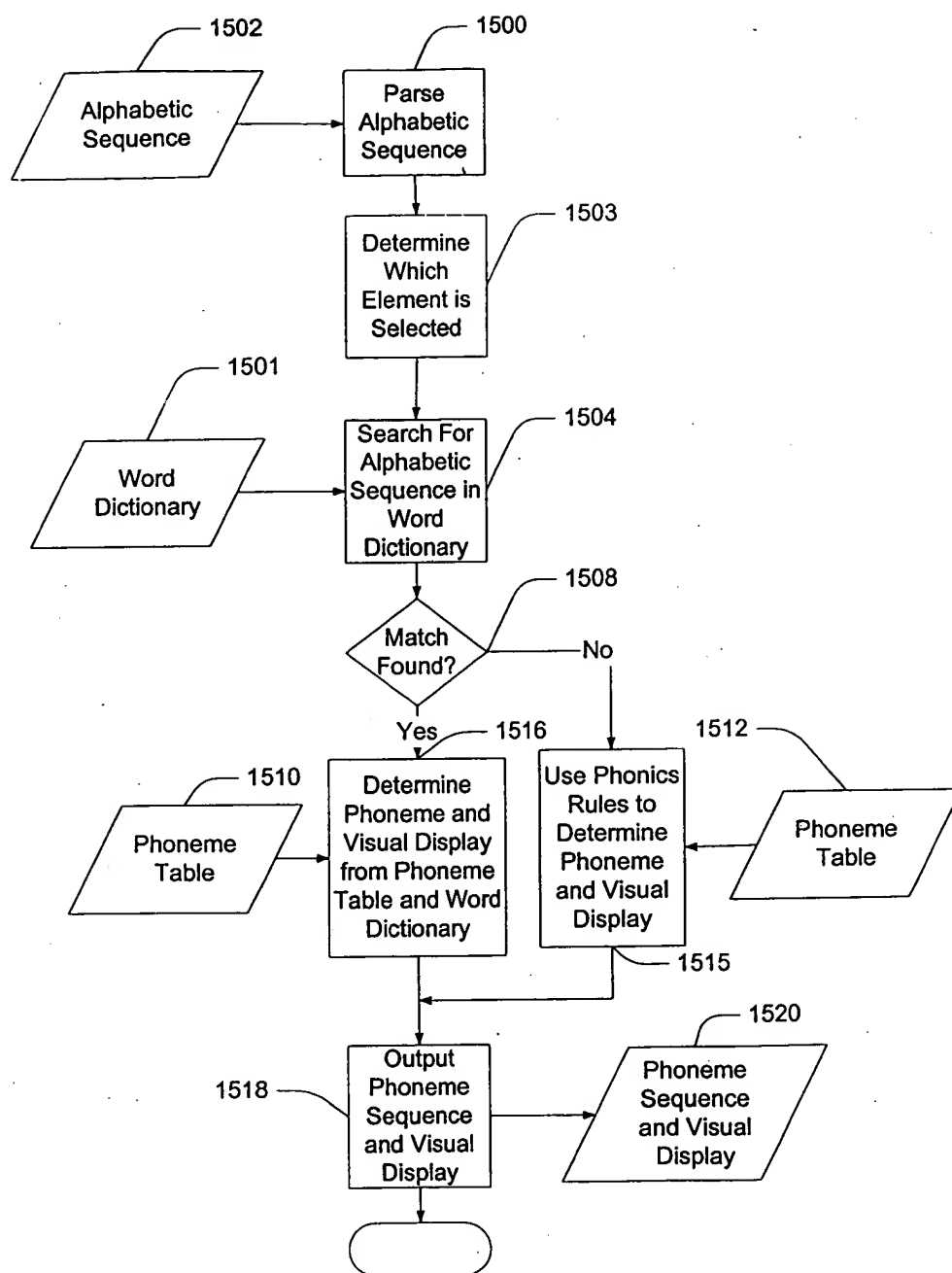


FIG. 15